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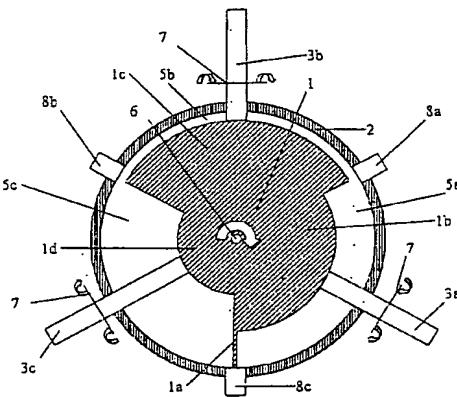
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(54) Title: ROTARY-PISTON MACHINE



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**(57) Abstract:** A rotary device for use with compressible fluids comprises a first rotation element mounted to rotate about a first axis and a casing having a surface enclosing at least a part of the first rotation element. An elongate cavity of varying cross sectional area is defined between a surface of the first rotation element and the casing surface. The rotary device also comprises a number of second rotation elements mounted to rotate about respective second axes. Each second rotation element is mounted to project through the casing surface and cooperate with the first rotation element surface to divide the cavity into adjacent working portions. At least one on the Working portions defines a closed volume for a part of a cycle of the device. As the first and second rotation elements rotate, the volumes of the working portions vary. Each second rotation element comprises a number of projecting portions of varying radius about the respective second axis such that each projecting portion projects through the casing into the cavity by a varying amount to cooperate with the first rotation element surface.